

What is claimed is:

1. A telecommunications network for providing fast handoff services to mobile users, said network comprising:

    a first information gateway located within a first mobile coverage area said first information gateway including first storage means for storing a list of available IP addresses in said first mobile coverage area;

    a second information gateway located within a second mobile coverage area, said second mobile coverage area abutting said first mobile coverage area, said second information gateway including second storage means for storing a list of available IP addresses in said second mobile coverage area;

    a first communication means for said first information gateway and said second information gateway to communicate;

    a mobile user unit having GPS means to identify the geographic location of said mobile user unit; and

    a second communication means for said mobile user unit to communicate with said first information gateway or said second information gateway.

2. A telecommunications network according to claim 1, further including address conflict resolution means associated with each of said first information gateway and said second information gateway.

3. A telecommunications network according to claim 2, wherein said address conflict resolution means comprises an ARP mechanism.

4. A telecommunications network according to claim 3, wherein said ARP mechanism is selected from the group consisting of proxy ARP, inverse ARP, reverse ARP and DHCP ARP.

5. A telecommunications network according to claim 1, wherein said first storage means and second storage means consist of a database.

6. A telecommunications network according to claim 1, wherein said first mobile coverage area is a WLAN network, a LAN network, an IPv4 network or an IPv6 network.

7. A telecommunications network according to claim 1, wherein said second mobile coverage area is a WLAN network, a LAN network, an IPv4 network or an IPv6 network.

8. A method for reducing handoff delay to a mobile user moving from a first mobile coverage area to a second mobile coverage area, said method comprising:

establishing a telecommunications network for providing fast handoff services to mobile users comprising;

a first information gateway located within said first mobile coverage area said first information gateway including first storage means for storing a list of available IP addresses in said first mobile coverage area;

a second information gateway located within said second mobile coverage area, said second mobile coverage area abutting said first mobile coverage area, said second information gateway including second storage means for storing a list of available IP addresses in said second mobile coverage area;

a first communication means for said first information gateway and said second information gateway to communicate;

a mobile user unit having GPS means to identify the geographic location of said mobile user unit; and

a second communication means for said mobile user unit to communicate with said first information gateway or said second information gateway;

establishing communication between said mobile user unit and said first information gateway via said second communication means;

providing said geographic location of said mobile user unit to said first information gateway;

prior to said mobile user unit moving out of said first mobile coverage area into said second mobile coverage area;

establishing communication between said first information gateway and said second information gateway via said first communication means;

sending at least one available IP address stored in said second storage means of said second information gateway to said first information gateway; and sending said available IP address to said mobile user unit; and configuring said mobile user unit to use said available IP address upon entering said second mobile coverage area.

9. A method according to claim 8, further including the step of dynamically updating said lists of available IP addresses on said first storage means and said second storage means.

10. A method according to claim 8, wherein said step of establishing communication between said mobile user unit and said first information is performed upon boot up of said mobile user unit.

11. A method of storing a list of available IP addresses in a mobile coverage area, said method comprising:

providing an information gateway located within said mobile coverage area said information gateway including storage means for storing a list of available IP addresses in said mobile coverage area; and

dynamically updating said list of available IP addresses.

12. A method according to claim 11, wherein said step of dynamically updating comprises performing an address conflict resolution process on said available IP addresses.

13. A telecommunications network according to claim 12, wherein said address conflict resolution process comprises an ARP mechanism.

14. A telecommunications network according to claim 13, wherein said ARP mechanism is selected from the group consisting of proxy ARP, inverse ARP, reverse ARP and DHCP ARP.